ABSTRACT

In one aspect of the invention, a method is provided for end-labeling RNA (total RNA, mRNA, cRNA or fragmented RNA). In one embodiment, T4 RNA ligase is used to attach a 3'-biotinylated AMP or CMP donor to an RNA acceptor molecule. In another embodiment, a pyrophosphate molecule 3'-AppN-3'-linker-biotin is used as donor molecule.

In another aspect of the invention, a method is provided for analyzing a nucleic acid population on a nucleic acid microarray comprising providing a nucleic acid population or converting the nucleic acid population into nucleic acid fragments; ligating the nucleic acid population or fragments to a labeled nucleic acid molecule to form labeled nucleic acid population or fragments using a ligase; hybridizing the labeled nucleic acid population or fragments to an array of nucleic acid probes, and determining hybridization signals of the probes as an indication of levels of the nucleic acids in the nucleic acid population.